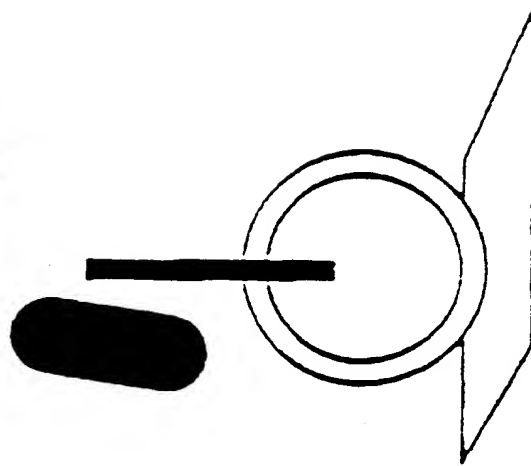
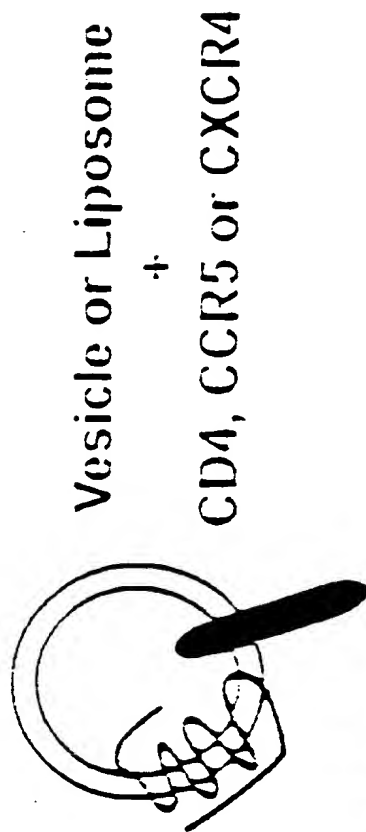


FIGURE 1



Vesicle or Liposome or Inactivated Hiv-1 Virion

+

Primary Isolate

gp160

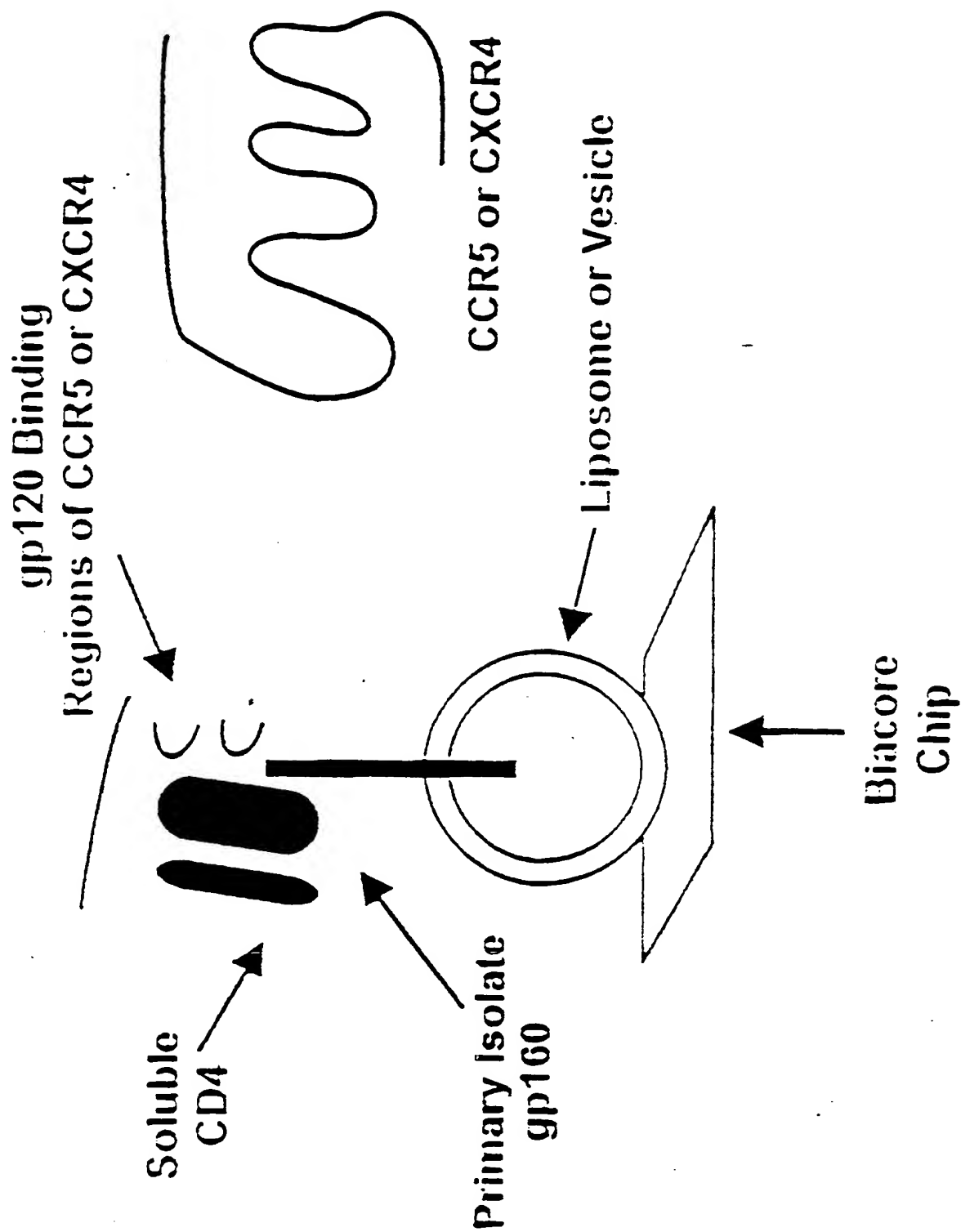


FIGURE 3

BIAcore measurements of binding interactions
between soluble gp120 (DH12) and CD4

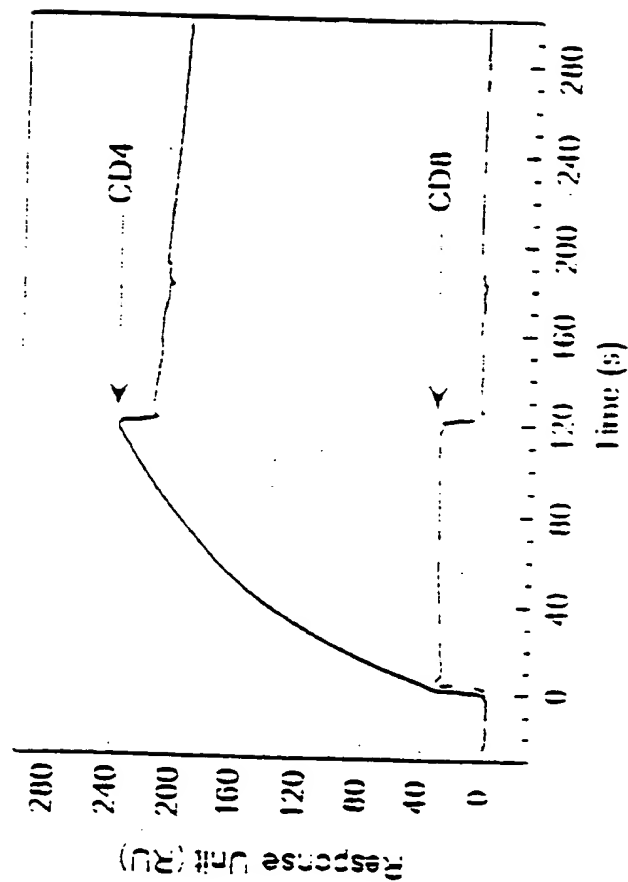


FIGURE 4

Binding interactions between soluble gp120 proteins and CD4

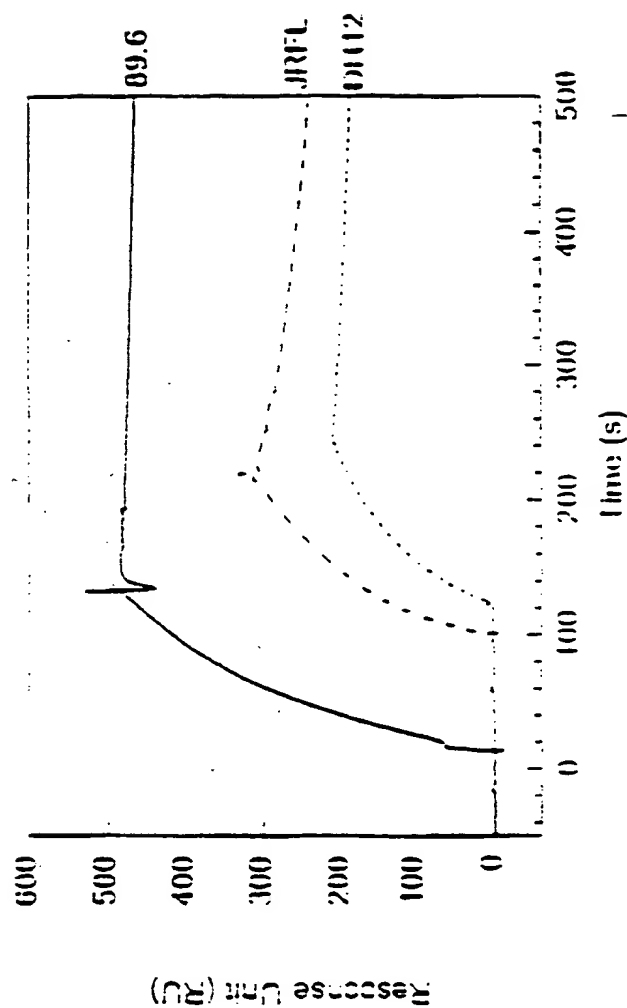


FIGURE 5

Kinetics and binding affinities of the interactions between
gp120 and CD4

gp120	$k_a, M^{-1}s^{-1}$ (on-rate)	k_d, s^{-1} (off-rate)	K_d M	t_{02} min
JRFL	6.0×10^3	8.84×10^{-4}	1.5×10^{-7}	14
DH12	4.9×10^3	3.86×10^{-4}	7.8×10^{-8}	30
89.6	4.6×10^3	8.48×10^{-5}	1.8×10^{-8}	136

FIGURE 6

Binding of soluble CD4 to gp120-expressing membranes from CHO-wt cells

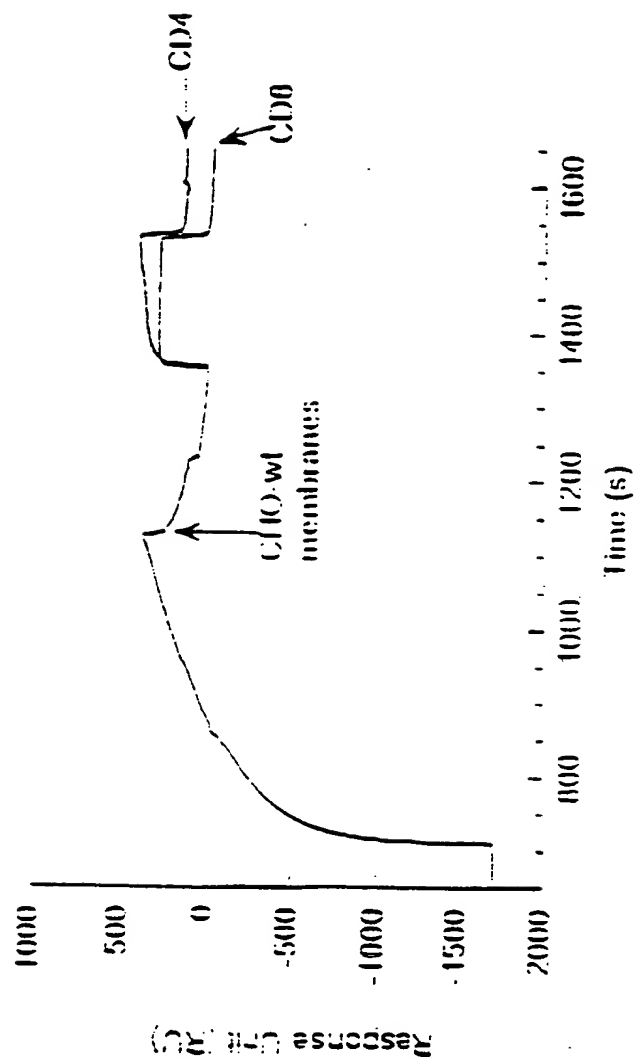
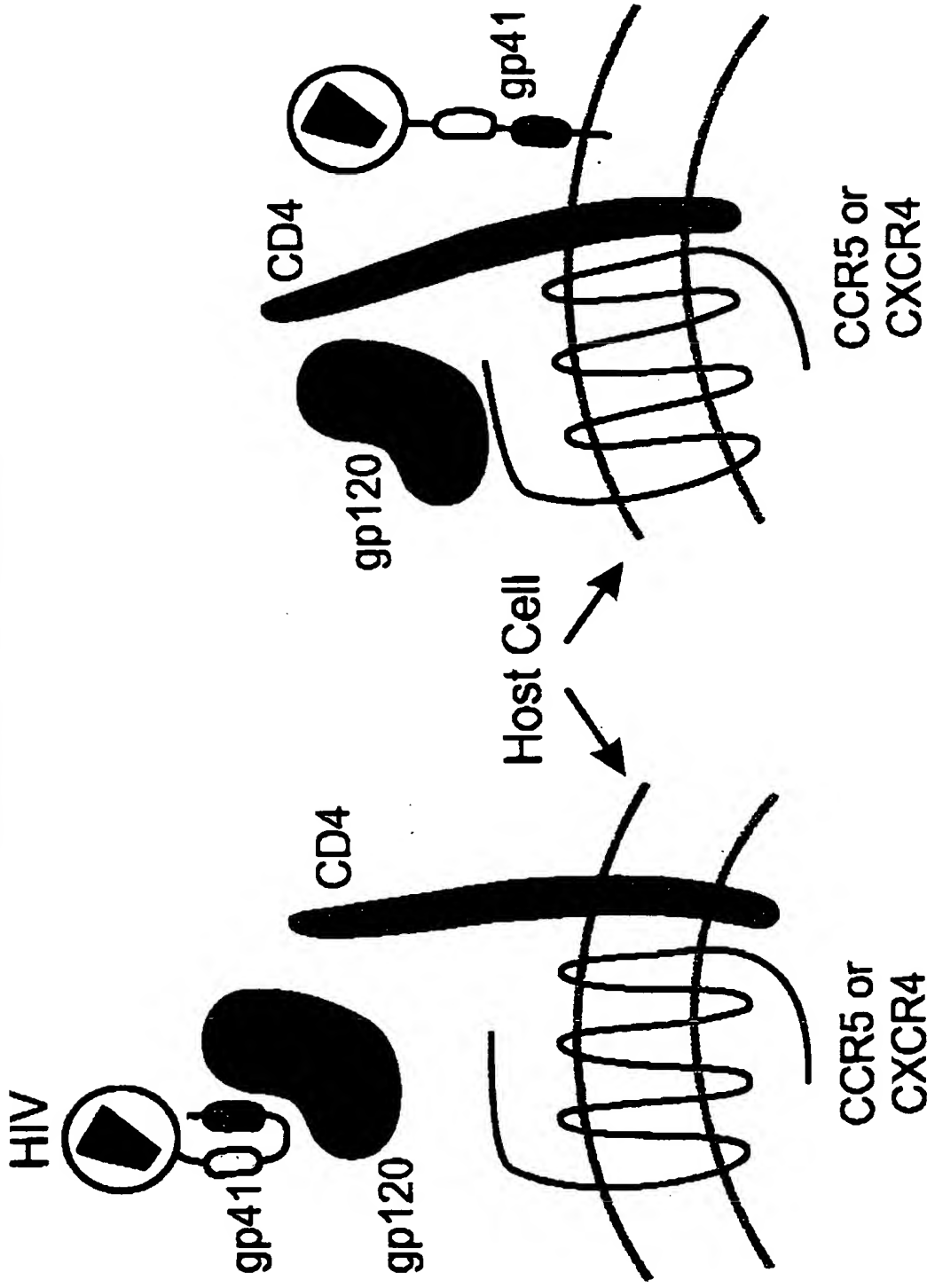


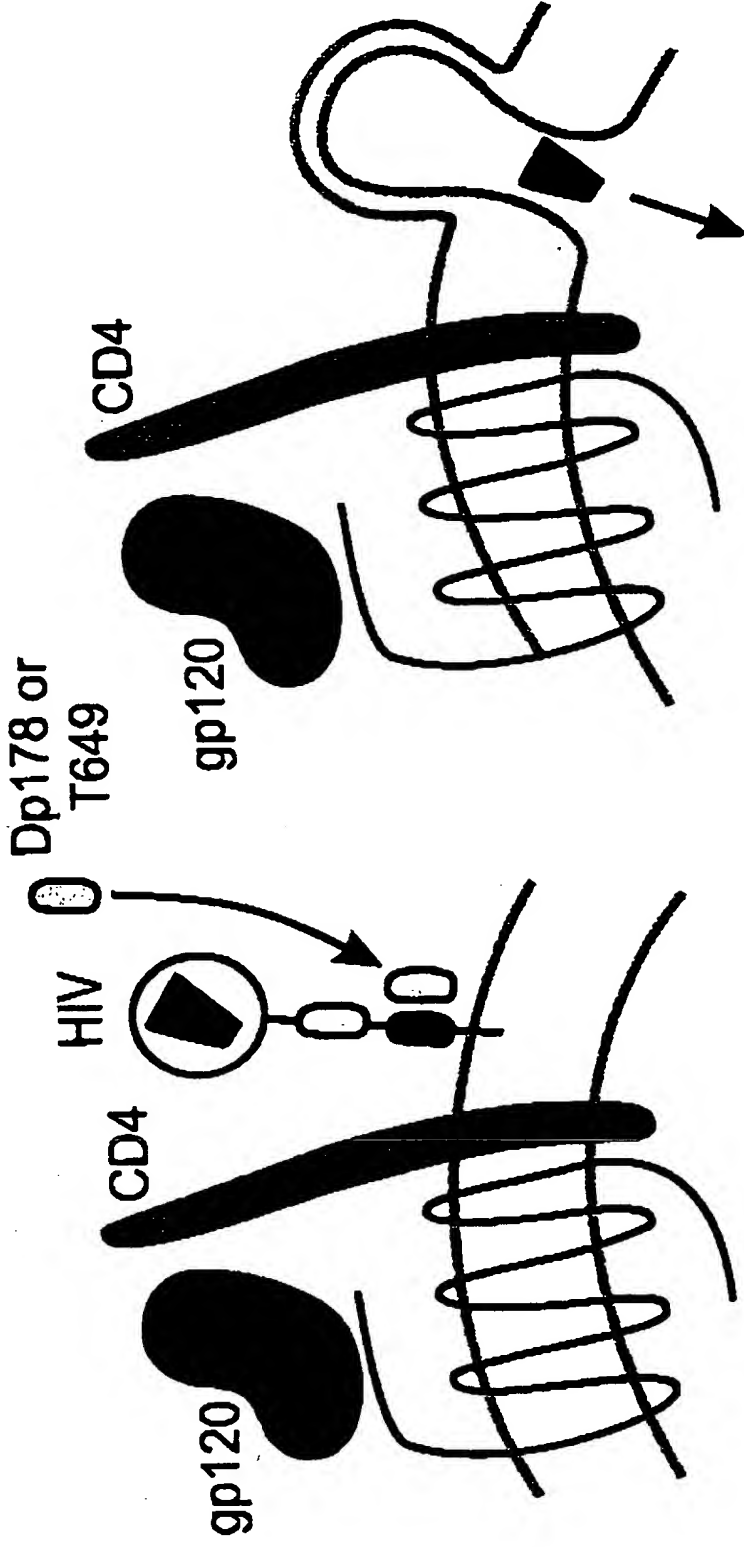
FIGURE 7



HIV Binds

HIV gp41 inserts into
cell lipid bilayer

Figure 8



CCR5 or
CXCR4

HIV fusion occurs
in the absence of
fusion inhibitory
peptide

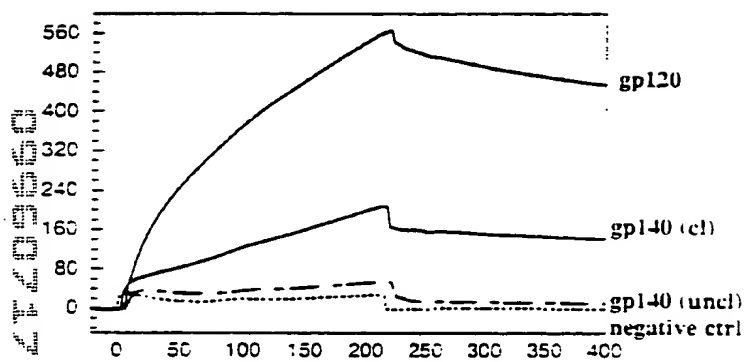
CCR5 or
CXCR4

HIV fusion blocked
by Dp178 or T649
peptides producing
"frozen" fusion intermediate

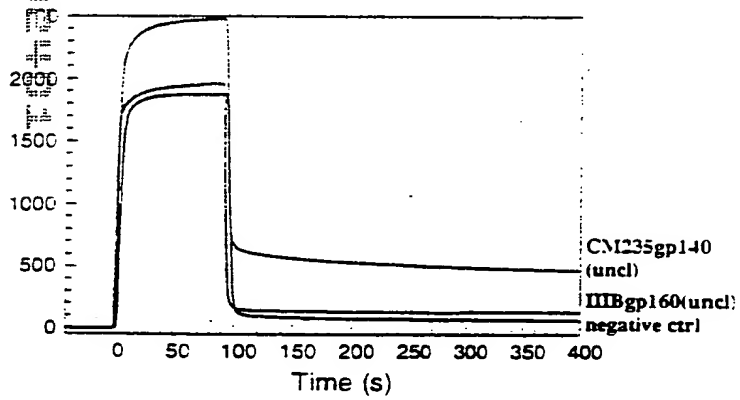
Figure 9

Figure 10

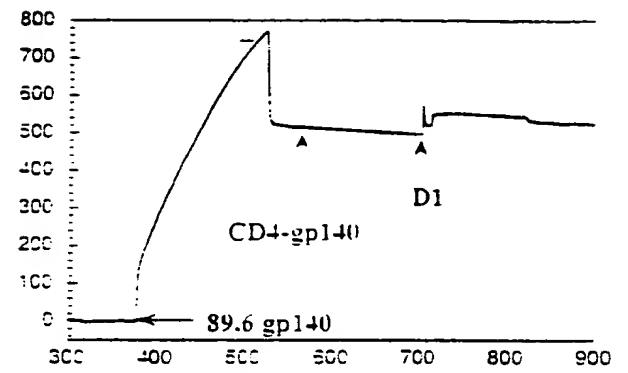
A)



B)



C)



D)

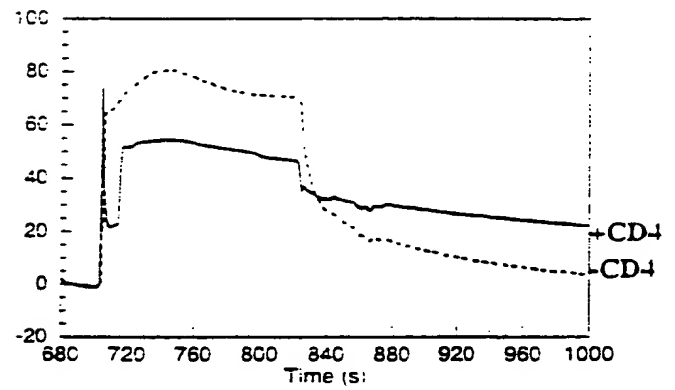
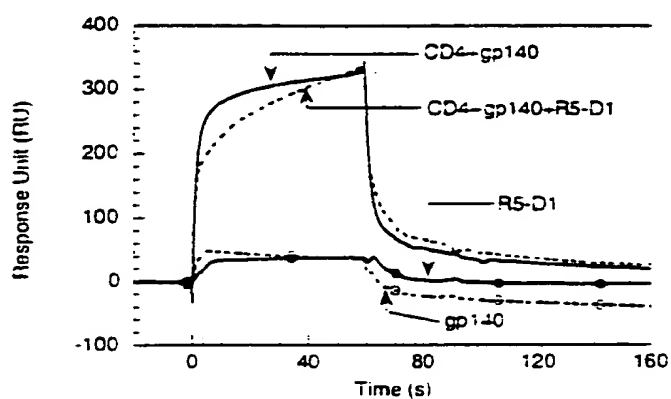
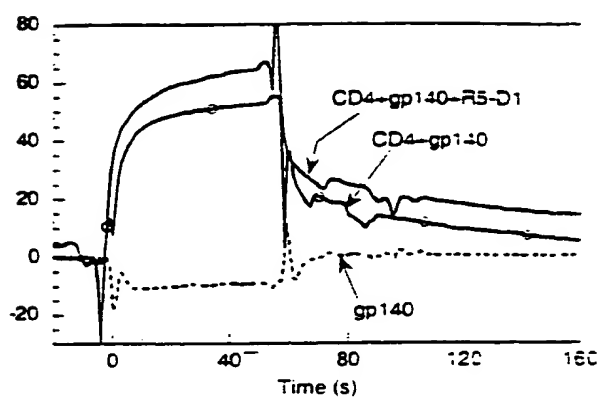


FIGURE 11

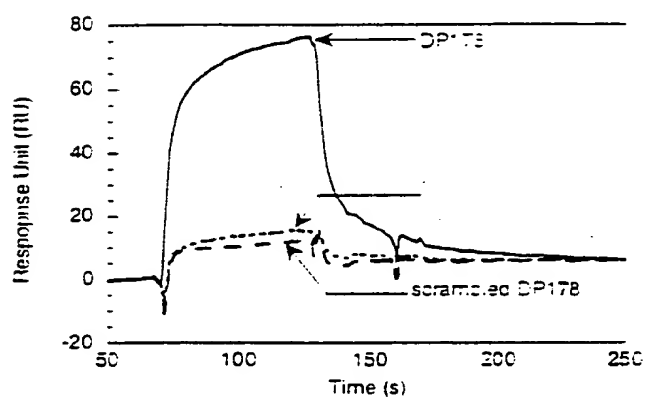
A)



B)



C)



D)

89.6 gp140	k_a $M^{-1}s^{-1}$	k_d s^{-1}	K_D μM	$t_{1/2}$ s	R_{max} RU
<u>DP178</u>					
CD4+gp140	7.9×10^5	5.6×10^{-3}	0.7	124	320
CD4-gp140-R5-D1	3.47×10^5	3.86×10^{-3}	1.1	180	328
gp140-R5-D1	nm	nm	nm	nm	38
gp140	nm	nm	nm	nm	35
<u>T64901</u>					
CD4+gp140	6.2×10^5	1.46×10^{-2}	2.4	48	53
CD4-gp140-R5-D1	5.1×10^5	5.3×10^{-3}	1.0	131	64
gp140-R5-D1	nm	nm	nm	nm	0
gp140	nm	nm	nm	nm	0

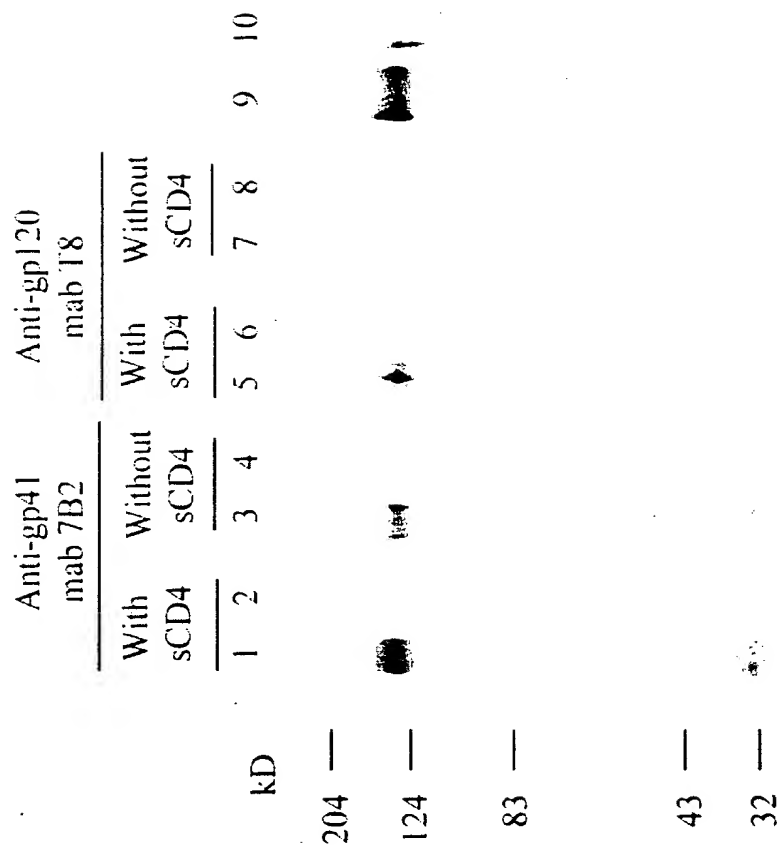
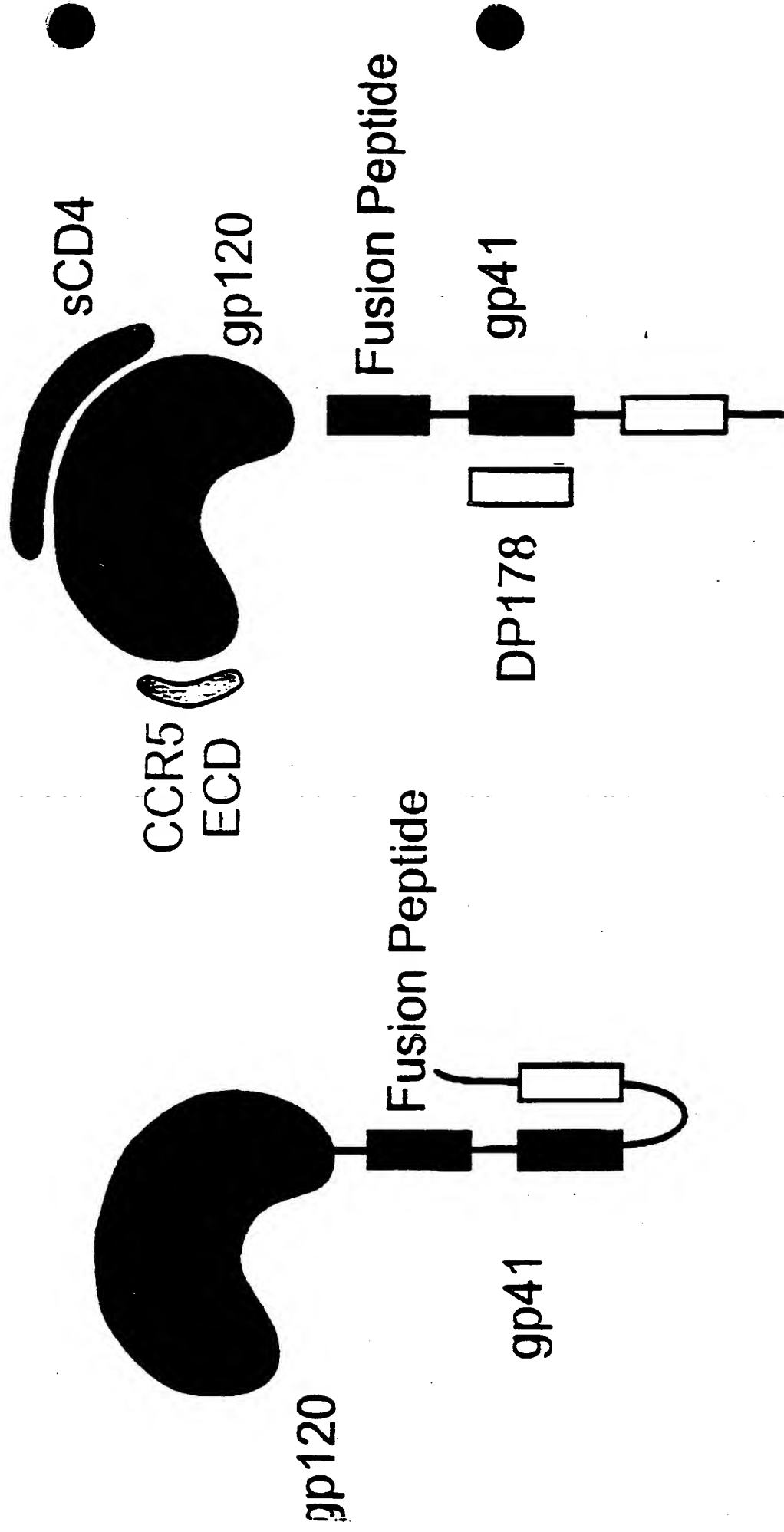


Figure 12

Induced Binding of HR-2 Peptides to Soluble HIV 89.6 gp140 Envelope



1126040960

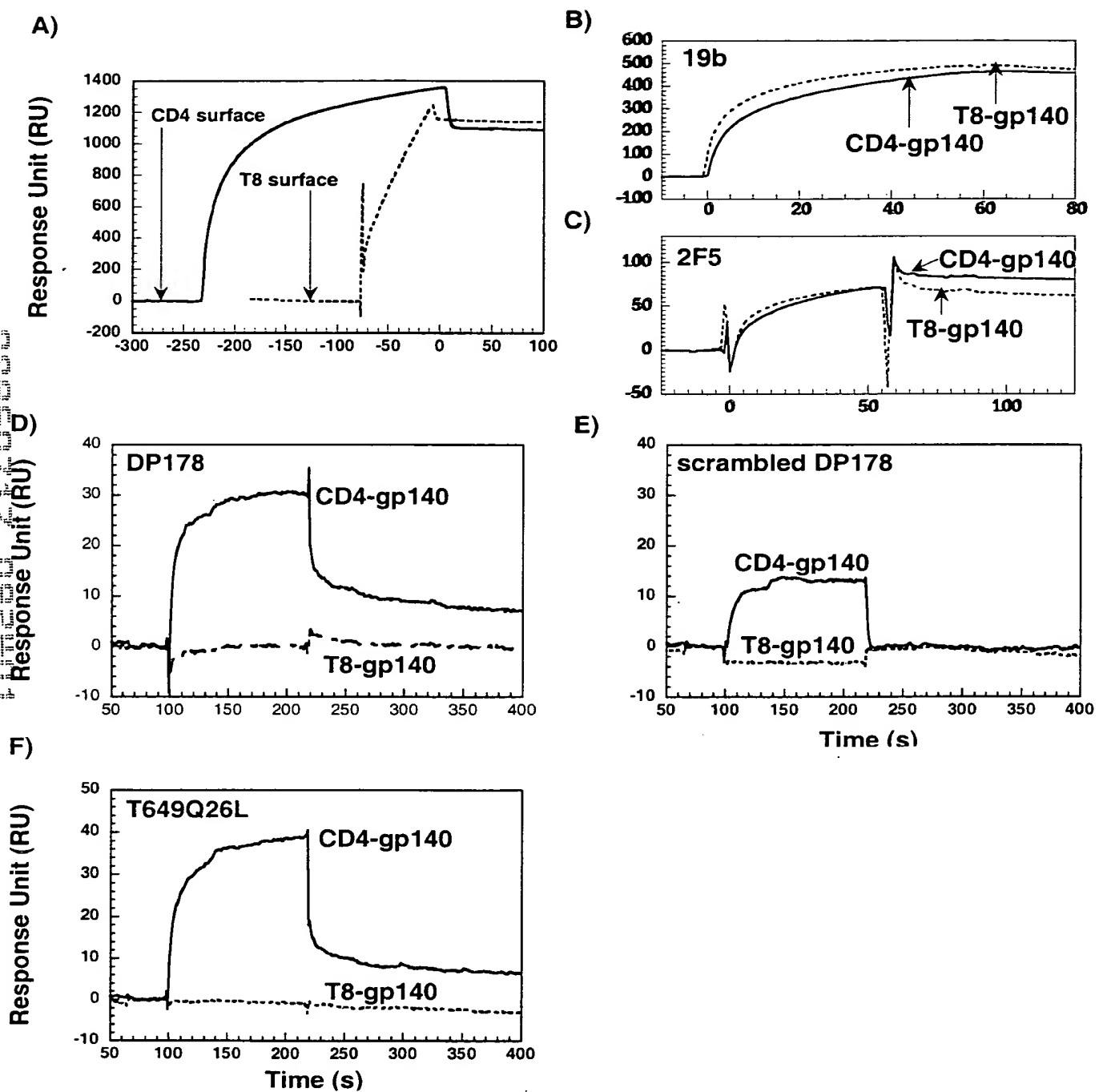
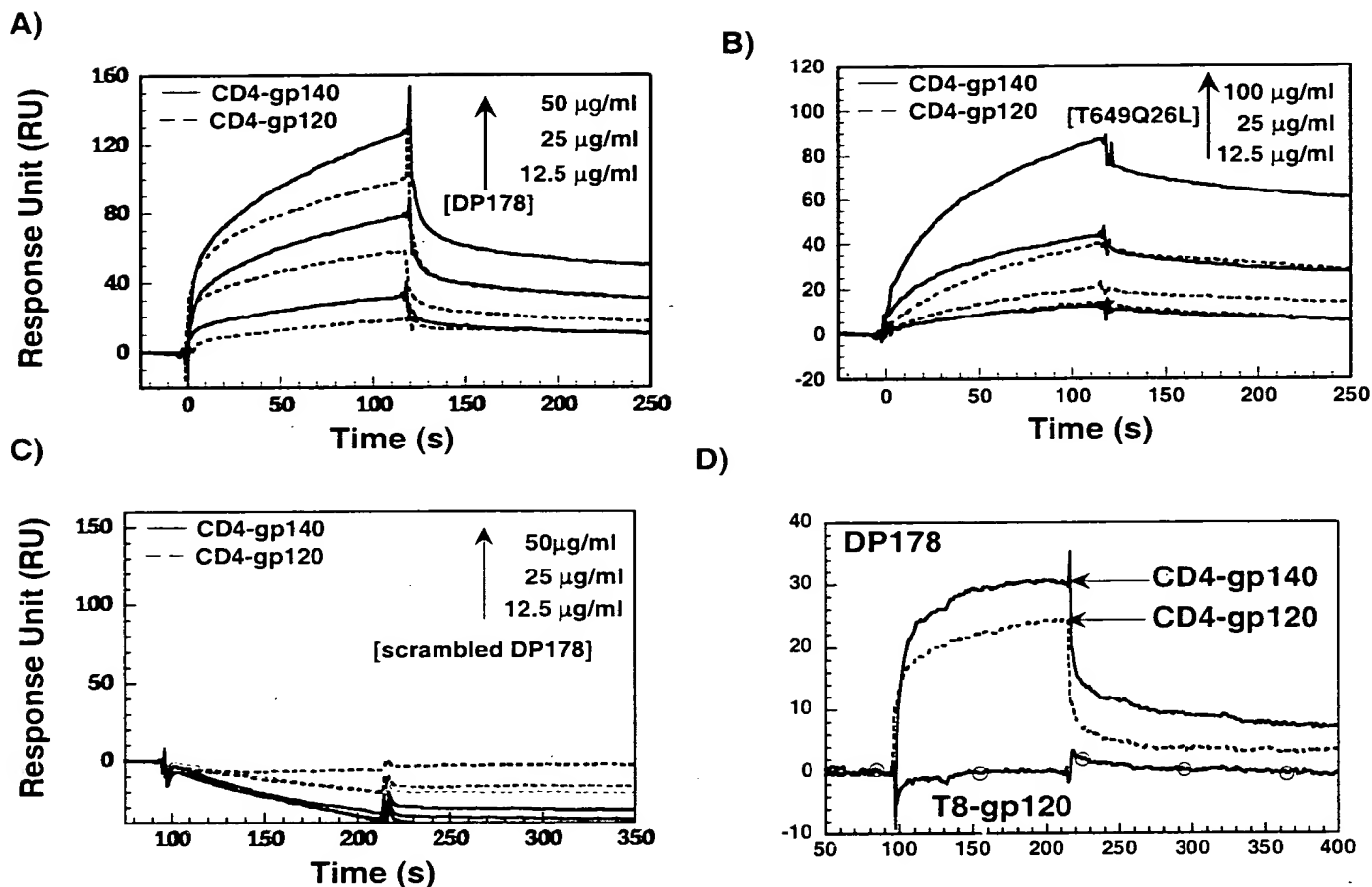


Figure 14



E)

	k_{on} M ⁻¹ s ⁻¹	k_{off} s ⁻¹	K_d μM	$t_{1/2}$ s
DP178				
CD4-gp120	0.75×10^3	1.5×10^{-3}	2.0	462
CD4-gp140	0.93×10^3	1.0×10^{-3}	1.1	693
T649Q26L				
CD4-gp120	1.26×10^3	3.2×10^{-3}	2.54	217
CD4-gp140	0.88×10^3	1.1×10^{-3}	1.20	630

Figure 15

2003-04-24

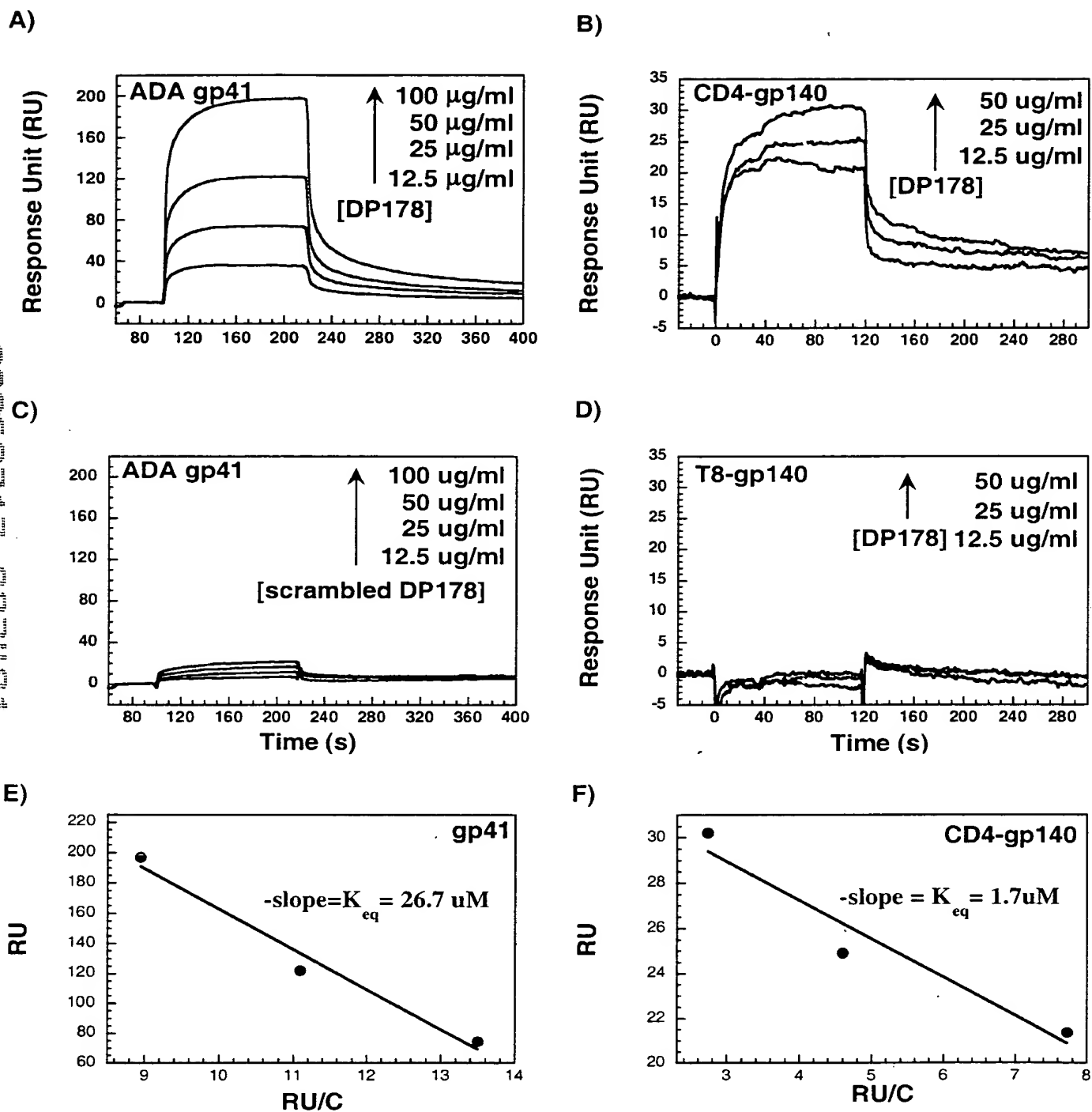


Figure 16

104250" 21203660

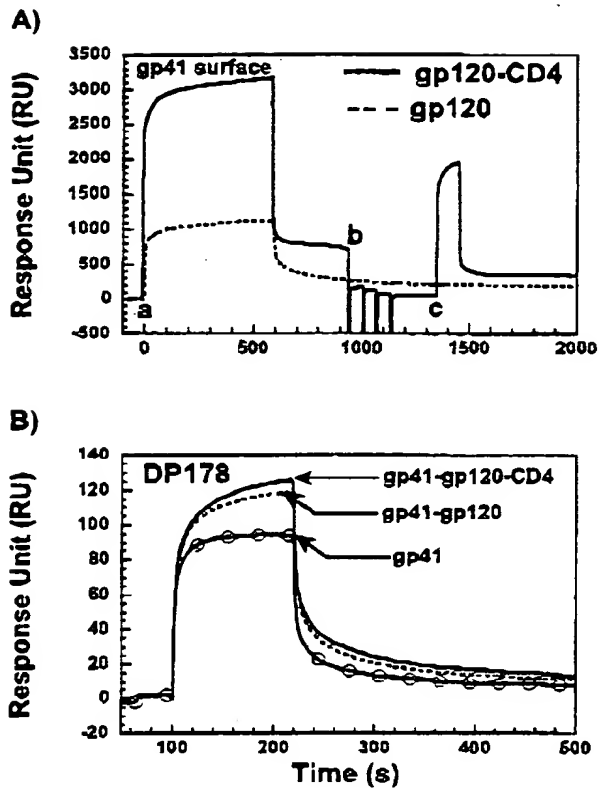
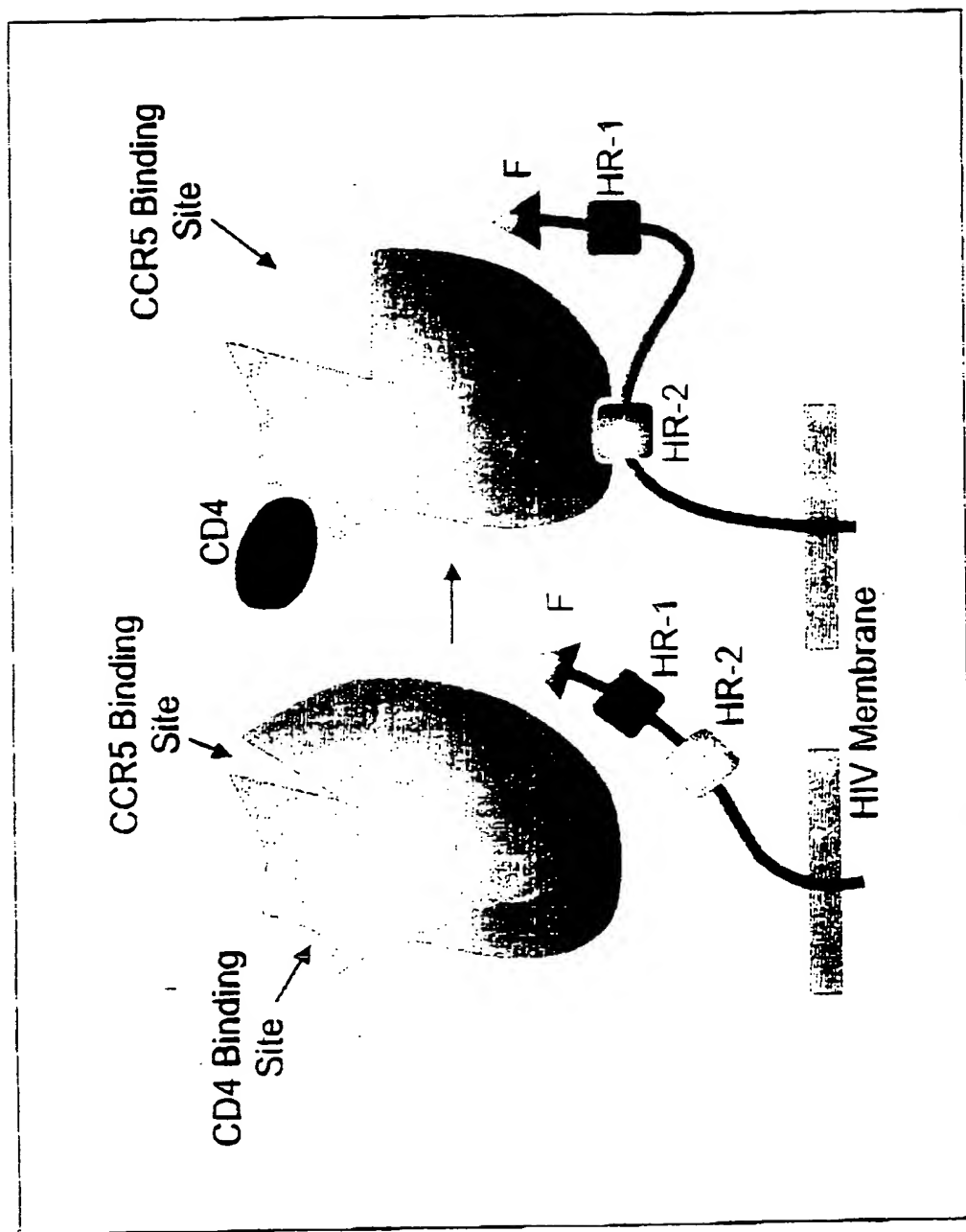


Figure 17



Trig 8

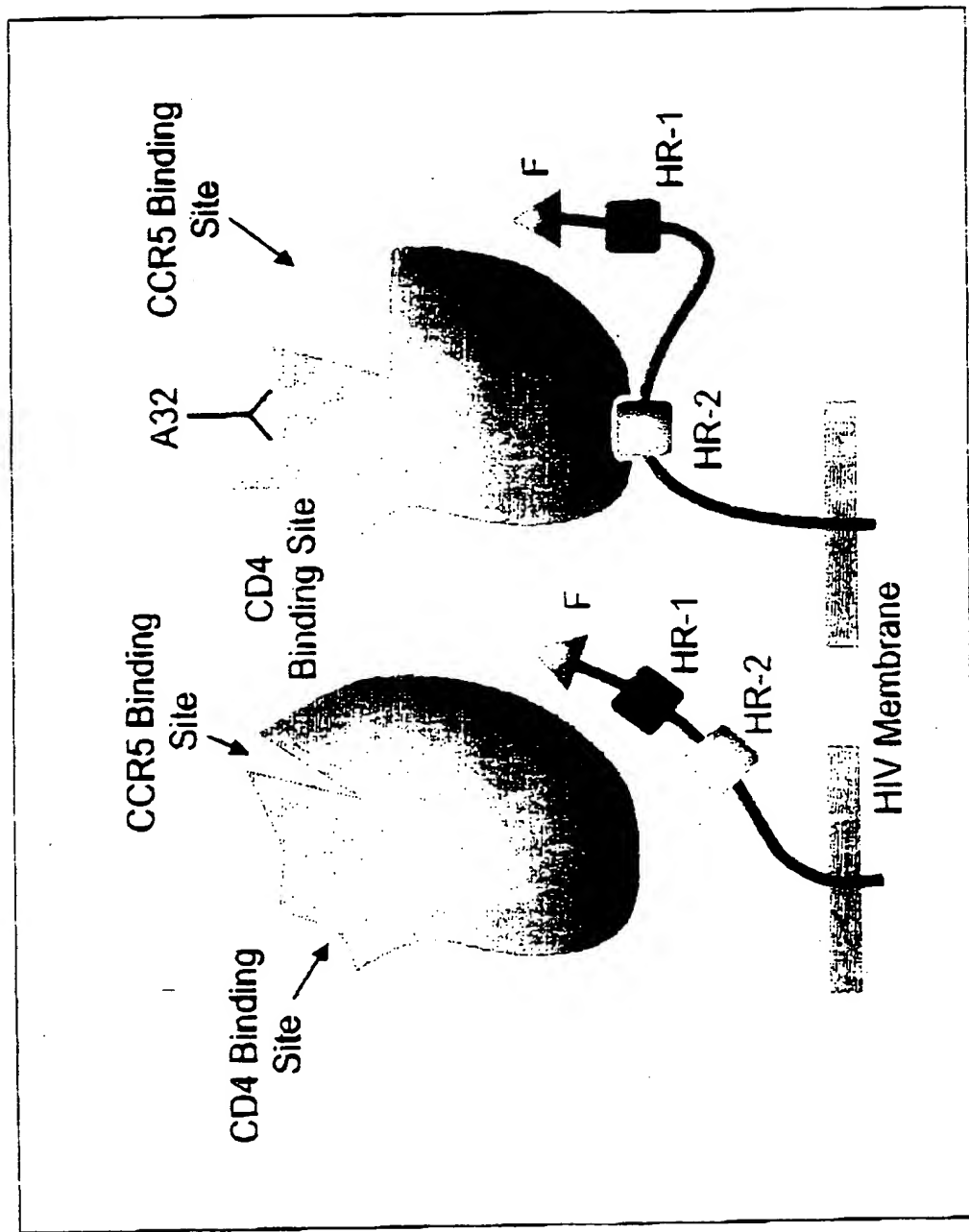


Figure 9

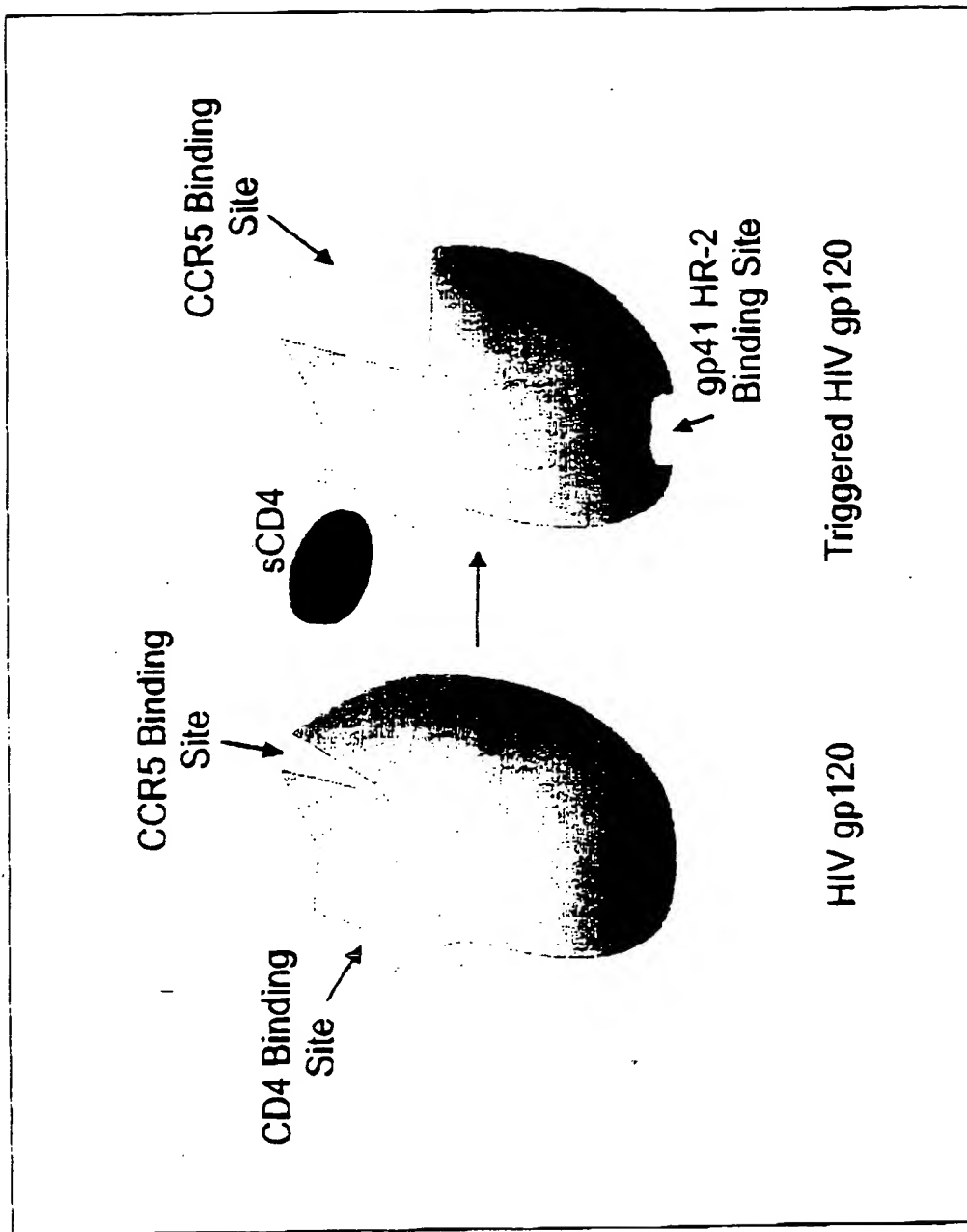


Figure 20

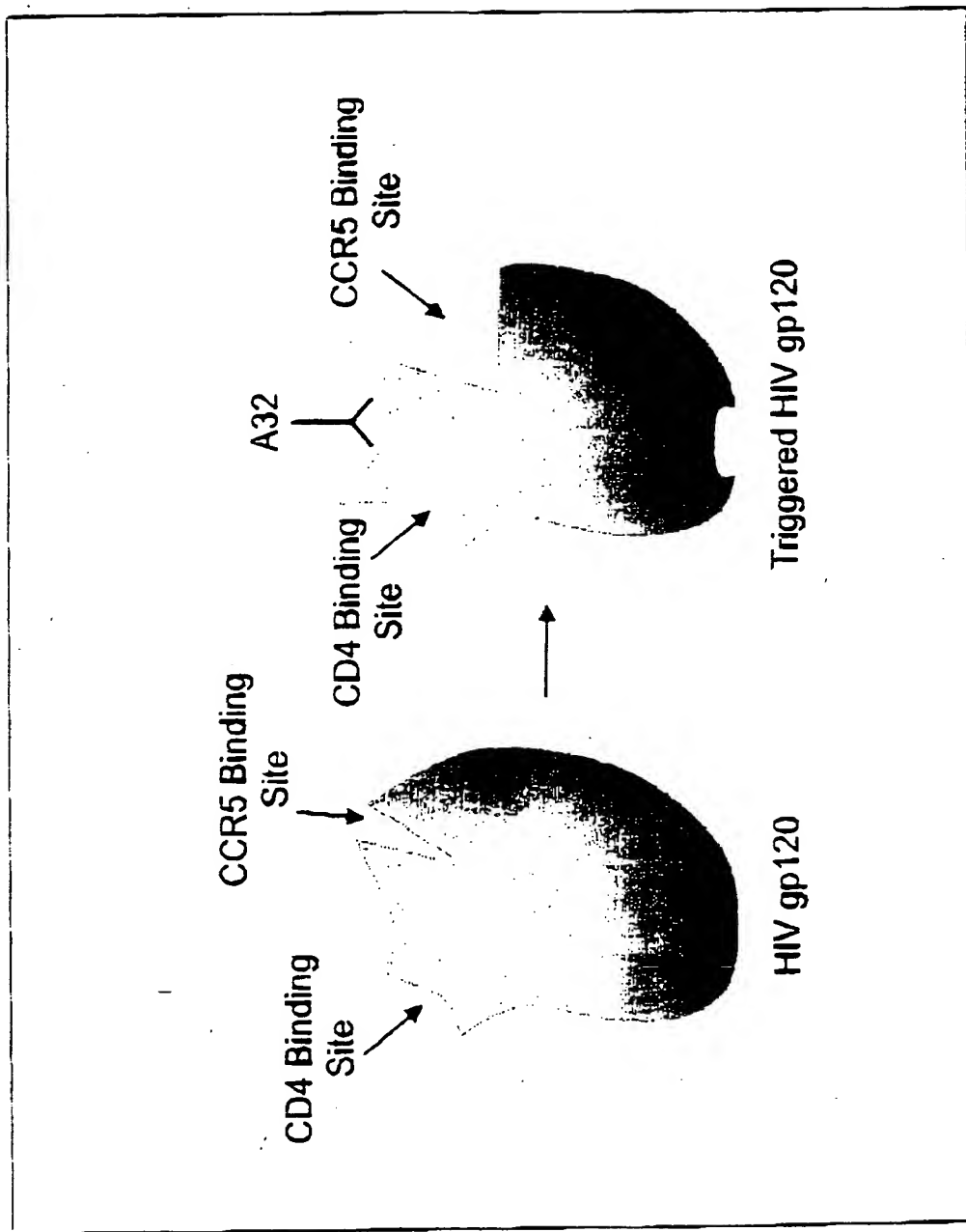


Figure 21

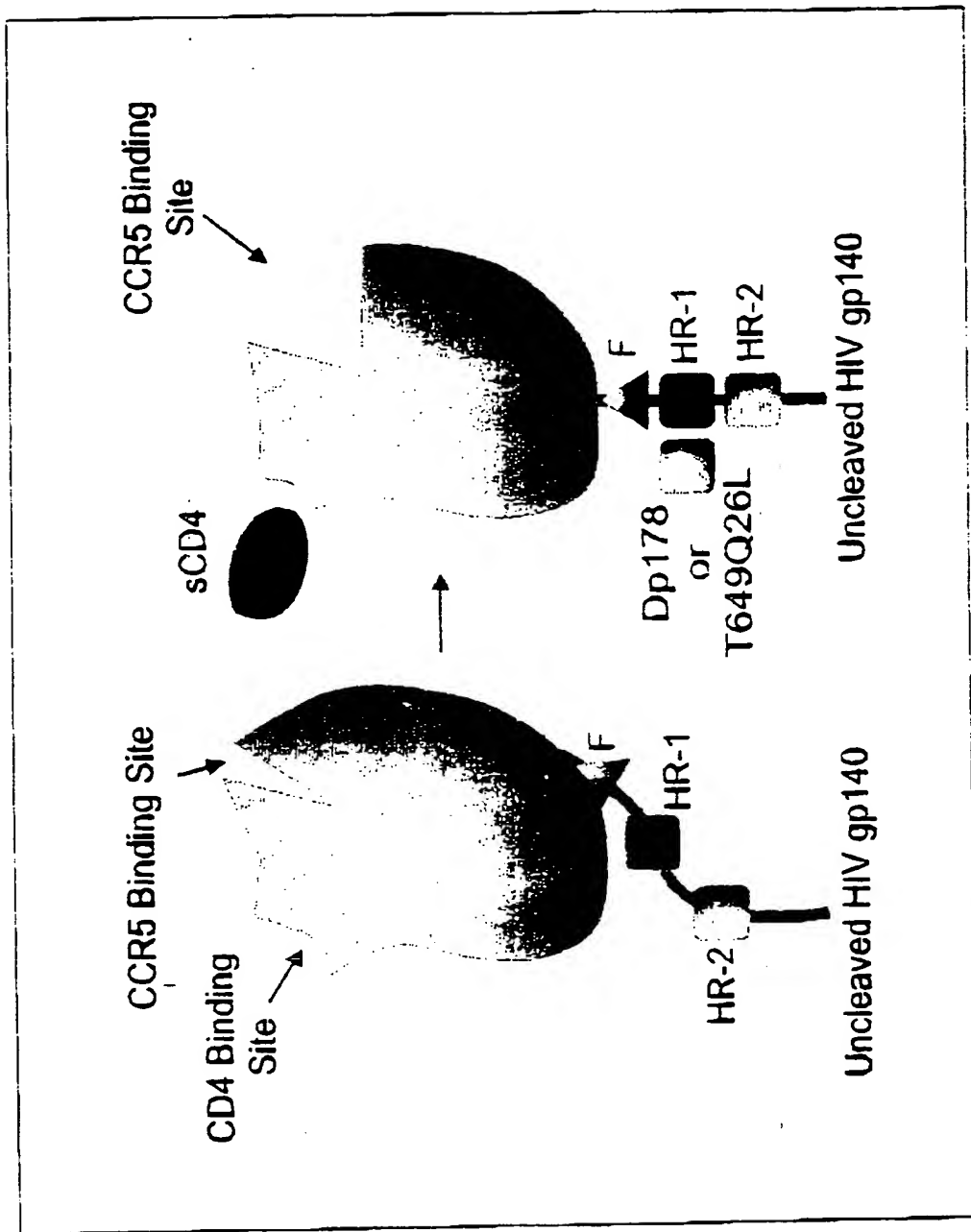


Figure 22

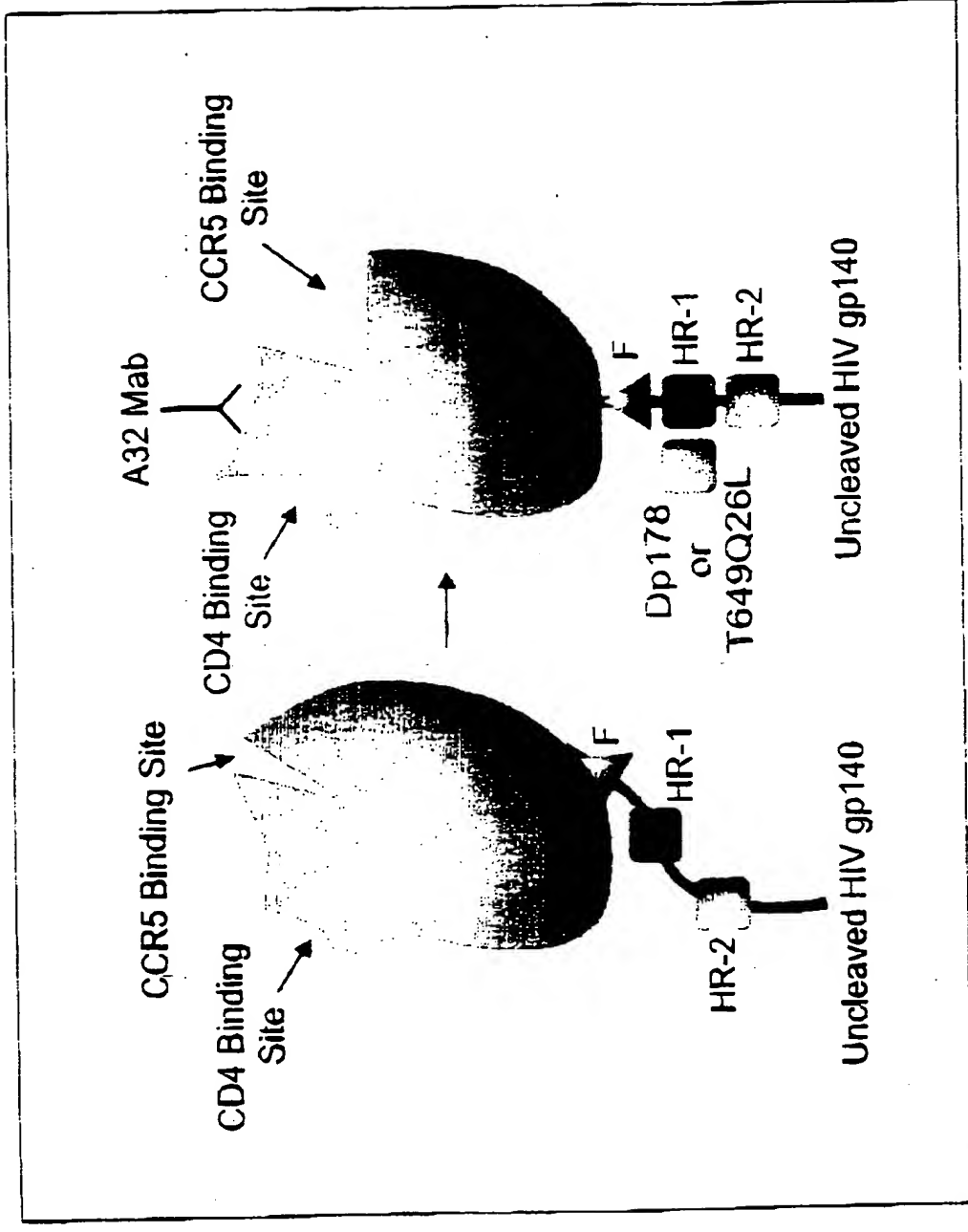


Figure 23

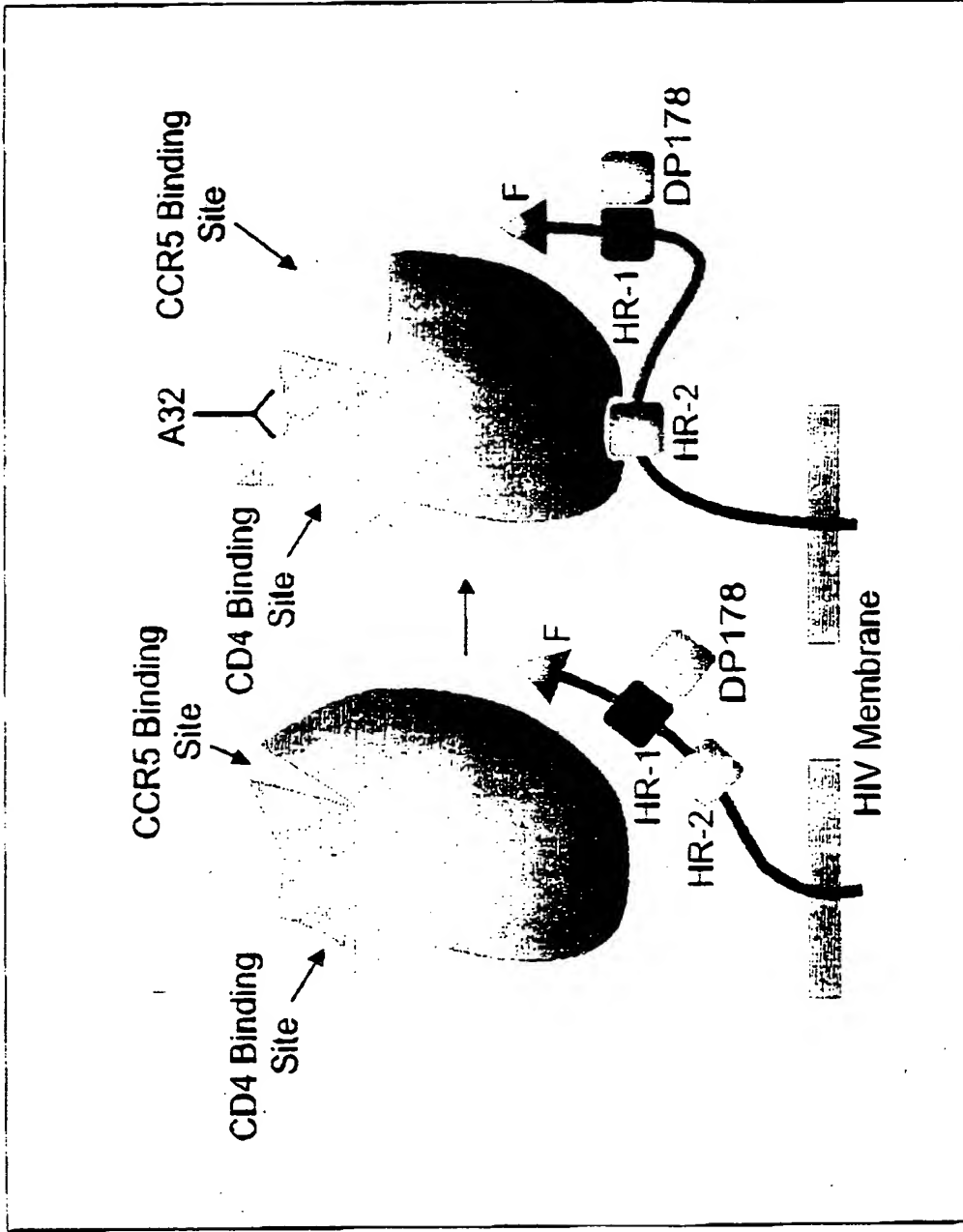


Figure 25

0960717 092404

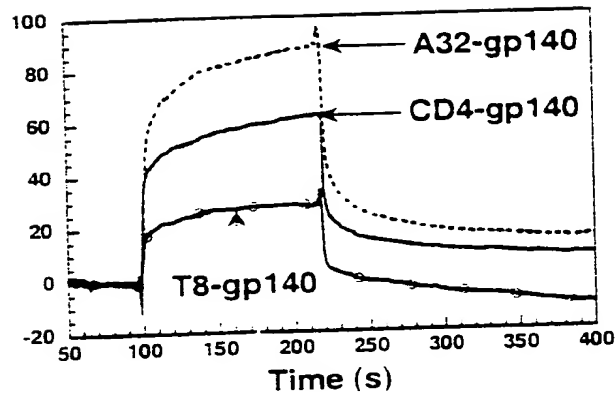


Figure 26